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10/090,643	03/06/2002	Jean-Yves Villet	Q68481	6080

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EXAMINER

THERIAULT, STEVEN B

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2179

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

1. This action is responsive to the following communications: RCE filed on 06/22/2006.
2. Claims 1-23 are pending in the case. Claims 1 and 21 are the independent claims.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/22/2006 has been entered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
 - a. A person shall be entitled to a patent unless –
 - (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
5. Claims 1-11, 13-16, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Louis et al (hereinafter Louis) U.S. Patent No. 6,088,023 issued July 11, 2000 and filed Dec. 10, 1996.

In regard to **Independent claim 1**, Louis teaches *a method for pointing at information in a multi-dimensional space, comprising the steps of:*

- *Setting a portion of a full screen as a pointing screen;* (Louis Figures 1-9 and column 5, lines 1-20) Louis expressly teaches the user may define a graphics window that is displayed on the display space where the user has the ability to adjust the size of the graphics window
- *Determining whether desired information to be pointed at is included in the set pointing screen;* (Louis Figures 1-9 and column 7, lines 19-35, 49-67 and column 8, lines 1-12)

Louis teaches the ability for the graphics window to be moved about the display when the user determines that the desired information is not included in the graphics window.

- *When it is determined that the desired information is not included in the pointing screen, moving the pointing screen so that the desired information is included in the pointing screen; and (d) Pointing at the desired information included in the pointing screen when it is determined that the desired information is included in the pointing screen or after step (c), wherein at least one of steps (a), (c), and (d) is performed by a user's motion in at least one direction selected from up, down, forward, backward, to the left, and to the right* (Louis Figures 1-9 and column 7, lines 19-35, 49-67 and column 8, lines 1-12) Louis shows a plurality to items on the display (now and they) where the graphics window is moved to encompass the words (compare Fig 4a to 4b) when the window is moved to the right. Louis teaches the windows can be moved in a free form manner that would include up/down, left/right.

With respect to **dependant claim 2**, Louis teaches *the full screen includes a plurality of pieces of information.* (Louis Figure 4a and 4b) Louis shows a plurality of pieces of information that are manipulated by the user within the graphics window.

With respect to **dependant claim 3**, Louis teaches the following sub-steps:

- *Determining whether the desired information is located on the left or right of the pointing screen, when it is determined that the desired information is not included in the pointing screen;* (Louis Figures 1-9 and column 7, lines 19-35, 49-67 and column 8, lines 1-12) Louis teaches the graphics window can be moved off of the display to point to information in another display space.
- *Moving the pointing screen to the left so that the desired information is included in the pointing screen, when it is determined that the desired information is located on the left of the pointing screen, and proceeding to step (d); and (c13) moving the pointing screen to the right so that the desired information is included in the pointing*

screen, when it is determined that the desired information is located on the right of the pointing screen, and proceeding to step (d) (Louis Figures 1-9 and column 7, lines 19-35, 49-67 and column 8, lines 1-12) Louis teaches the windows can be moved in a free form manner that would include left/right.

With respect to **dependant claim 4**, Louis teaches the following:

- *Determining whether the desired information is located above or below the pointing screen, when it is determined that the desired information is not included in the pointing screen; (Louis Figures 1-9 and column 7, lines 19-35, 49-67 and column 8, lines 1-12) Louis teaches the user determines that the desired information to be pointed at can be located off of the display space and the graphics window can moved off the space to the desired information (see Figure 5c-5d and column 8, lines 27-43).*
- *Moving the pointing screen up so that the desired information is included in the pointing screen, when it is determined that the desired information is located above the pointing screen, and proceeding to step (d); and moving the pointing screen down so that the desired information is included in the pointing screen, when it is determined that the desired information is located below the pointing screen, and proceeding to step (d)* (Louis Figures 1-9 and column 7, lines 19-35, 49-67 and column 8, lines 1-12) Louis teaches the windows can be moved in a free form manner that would include up/down, left/right.

With respect to **dependant claim 5**, Louis teaches the following:

- *Determining whether the desired information is located on the left or right of the pointing screen, when it is determined that the desired information is not included in*

the pointing screen; (c32) moving the pointing screen to the left so that the pointing screen is located at a same horizontal position as the desired information, when it is determined that the desired information is located on the left of the pointing screen; (c33) Moving the pointing screen to the right so that the pointing screen is located at a same horizontal position as the desired information, when it is determined that the desired information is located on the right of the pointing screen; determining whether the desired information is included in the pointing screen moved in step (c32) or (c33) and proceeding to step (d) when it is determined that the desired information is included in the moved pointing screen; (Louis Figures 1-9 and column 7, lines 19-35, 49-67 and column 8, lines 1-12) Louis teaches the windows can be moved in a free form manner that would include left/right (See also column 8, lines 25-43).

- *Determining whether the desired information is located above or below the moved pointing screen, when it is determined that the desired information is not included in the moved pointing screen; moving the pointing screen up so that the desired information is included in the pointing screen, when it is determined that the desired information is located above the moved pointing screen, and proceeding to step (d); and moving the pointing screen down so that the desired information is included in the pointing screen, when it is determined that the desired information is located below the moved pointing screen, and proceeding to step (d) (Louis Figures 1-9 and column 7, lines 19-35, 49-67 and column 8, lines 1-12) Louis teaches the windows can be moved in a free form manner that would include up/down (See also column 8, lines 25-43).*

With respect to **dependant claim 6**, Louis teaches the following sub-steps:

- *Determining whether the desired information is located above or below the pointing screen, when it is determined that the desired information is not included in the pointing screen; moving the pointing screen up so that the pointing screen is located*

at a same vertical position as the desired information, when it is determined that the desired information is located above the pointing screen; moving the pointing screen down so that the pointing screen is located at a same vertical position as the desired information, when it is determined that the desired information is located below the pointing screen; determining whether the desired information is included in the pointing screen moved in step (c42) or (c43) and proceeding to step (d) when it is determined that the desired information is included in the moved pointing screen; (Louis Figures 1-9 and column 7, lines 19-35, 49-67 and column 8, lines 1-12) Louis teaches the windows can be moved in a free form manner that would include up/down (See also column 8, lines 25-43). Louis shows the graphics window can be moved anywhere on the display to encompass the desired information.

- *Determining whether the desired information is located on the left or right of the moved pointing screen, when it is determined that the desired information is not included in the moved pointing screen; moving the pointing screen to the left so that the desired information is included in the pointing screen, when it is determined that the desired information is located on the left of the moved pointing screen, and proceeding to step (d); and moving the pointing screen to the right so that the desired information is included in the pointing screen, when it is determined that the desired information is located on the right of the moved pointing screen, and proceeding to step (d)* (Louis Figures 1-9 and column 7, lines 19-35, 49-67 and column 8, lines 1-12) Louis teaches the windows can be moved in a free form manner that would include left/right (See also column 8, lines 25-43). Louis shows the graphics window can be moved anywhere on the display to encompass the desired information.

With respect to **dependant claim 7**, Louis teaches *the user's motion is sensed by a sensor* (Louis Figure 1a and column 4, lines 50-67) Louis teaches the use of an touch sensitive display that will

sense the users input or movement.

With respect to **dependant claim 8**, Louis teaches *the pointing screen is moved by moving the sensor beyond at least one of a horizontal motion range and a vertical motion range, when it is determined that the desired information is not included in the pointing screen in step (c), said at least one of the horizontal motion range and the vertical motion range corresponding to at least one range in which the sensor can be moved to the left/right and upward/downward, respectively, to point at the desired information in step (d)* (Louis Figure 11 and column 9, lines 30-67 and column 10, lines 1-42). Louis teaches a vertical range and a horizontal motion range for the device correspond the range that the graphics window can be moved (See also column 5, lines 1-10).

With respect to **dependant claim 9**, Louis teaches *At least one of a horizontal size and a vertical size of the pointing screen is set* (Louis Figures 1-9 and column 5, line 1-25) Louis expressly shows the ability to adjust the graphics window size on the display.

With respect to **dependant claim 10**, Louis teaches *an initial position which is initially pointed at within the pointing screen is set* (Louis Figure 1c and 3a-3d and column 6, lines 60-67) Louis teaches the cursor location in the graphics window is set by the user touching the sensor in a specific location.

With respect to **dependent claim 11**, Louis teaches *a speed at which the pointing screen is moved is set* (Louis column 3, lines 35-42 and column 8, lines 44-65).

With respect to **dependant claim 13**, Louis teaches *the full screen corresponds to a graphical-user interface screen* (Louis figures 1-9). Louis teaches the full screen with the graphics window located within it and where the window can be resized to the users choice size.

With respect to **dependant claim 14**, Louis teaches *the sensor performs a unique pointing function like a mouse* (Louis Figure 9a –9b and column 9, lines 20-31). Louis teaches the sensor can be a mouse and function like a mouse.

With respect to **dependant claim 15**, Louis teaches *the desired information pointed at is executed* (Louis Figures 1c – 1d and 4a-4b). Louis teaches the user is entering in hand written information that is a process of executing a drawing command.

With respect to **dependant claim 16**, Louis teaches the sensor is included in an information input device (Louis figures 1-9).

In regard to **Independent claim 21**, Louis teaches *the method for pointing at information in a multi-dimensional space and performing functions of a mouse, the method comprising: an information selection step of creating a pointing screen at a portion of a full screen at a user's option such that the pointing screen includes at least one piece of information to be executed; and an information execution step of executing the information included in the pointing screen by clicking the information* (Louis Figures 1-9 and column 7, lines 19-35, 49-67 and column 8, lines 1-12 and column 9, lines 20-31). Louis teaches a cursor control in use with a graphical window in which the window is in direct control of the cursor movement on the display. The cursor can be moved and controlled using mouse movements (See figure 9a) and where a graphics window includes information (see figure 4a) and where the information is executed through a drawing command.

Claim Rejections - 35 USC § 103

6. **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

Art Unit: 2179

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

b. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Louis et al (hereinafter Louis) U.S. Patent No. 6,088,023 issued July 11, 2000 and filed Dec. 10, 1996. in view of Wambach et al (hereinafter Wambach) U.S. Patent No. 6,097,369, issued Aug. 1, 2000 and filed Feb. 2, 1995.**

With respect to **dependant claims 22 and 23**, as indicated in the above discussion, Louis teaches every limitation of claim 1.

Louis fails to expressly teach the method wherein *said information is pointed to with a hand device having a sensor, said sensor comprising at least a fixed member disposed on one segment of a finger and a moving member disposed on another segment of said finger and wherein said fixed member and said moving member are connected via an axis, wherein said axis, said fixed member and said moving member constitute the same device.*

Wambach teaches a glove that the user wears to perform mouse functions. The glove contains switches located on each finger to perform the various functions of the mouse such as

drag-n-drop and selection and with an Infrared sensor located on the wrist to control the cursor direction. Wambach also teaches an alternative arrangement (see column 5, lines 15-20) where all of the cursor buttons and the infrared sensor are located on the finger so that all motion sensing devices follow the index finger. Therefore the infrared sensor and the moving switch are located on the same finger but on different sections or segments of the finger.

Additionally, Wambach teaches operations where the system senses when a finger is moved beyond a threshold rotation value that is measured from the plane where the finger normally resides, which is an example of a switch and a sensor connected by an axis. For example, the finger is rotated from the normal plane of the users hand and lets say the sensor is on the upper portion of the finger and the switch is on the lower. In relation to the resting plane of the hand the system would need to determine the sensor location and the switch for the purposes of computing the threshold value because the center of the plane would be at the sensor and all movements would be calculated in relation to the plane of the sensor. The axis of the finger and the fixed portion of the finger and the moving member are all a part of the same device. Louis and Wambach are analogous art because they are from the same field of endeavor of manipulating a cursor on the display screen to move a graphical object.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of Louis and Wambach before him at the time of the invention was made, to modify the system of Louis to incorporate a hand sensor input device and all of the movement control switches into a single finger of the glove as taught by Wambach, in order to obtain a system that is able to adjust with the movement of a single finger. One would have been motivated to make such a combination because of the need to minimize or eliminate the unnecessary hand movement off of the keyboard to operate a conventional mouse as taught by Wambach.

8. **Claims 12, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Louis et al (hereinafter Louis) U.S. Patent No. 6,088,023 issued July 11, 2000 and filed Dec. 10, 1996, in view of Mallett et al (hereinafter Mallett) U.S. Patent No. 6,292,174 issued Sept 18, 2001 and filed May 4, 2000.**

With respect to **dependant claim 19**, as indicated in the above discussion, Louis teaches every element of claim 1.

Louis expressly teaches the ability to detect and calibrate signals coming from an input device to measure the velocity of movement of the cursor in relation to the velocity of the users finger across the input touch screen or tablet (See column 3, lines 1-5 and 35-42 and figure 6a and 6b and column 8, lines 43-65).

Louis fails to expressly teach wherein the step (a) comprises preparing a speed menu used for setting the speed at which the pointing screen is moved. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Mallett, because Mallett teaches an enhanced cursor control mechanism with a menu that allows the user to set a speed setting to move the cursor across the screen (See Mallett figure 7). Mallett and Louis are analogous art because Mallett teaches a process of moving a graphical object across a screen in synch with a users movement of an object across a sensing device and Louis also teaches a process of measuring users movements of an object across a device. Mallett teaches the motivation to combine in that user interaction and manipulation of the computer environment is achieved using a variety of types of human-computer interface devices that control the display such as a joystick, mouse etc in which the displacement of the mouse on a workspace directly correlates to the displacement of the cursor.

With respect to **dependant claims 12 and 20**, as indicated in the above discussion, Louis teaches every element of claim 1.

Louis fails to expressly teach a *degree of reaction to the user's motion of a pointer displayed in the pointing screen, is set and preparing a reaction menu used for setting the degree of reaction of the pointer.*

Mallett expressly teaches the ability to adjust menu settings to control ballistics and speed setting of the cursor on the display. The system settings for mouse controls, cursor movement, click speed and other settings that allow for customization of the desktop to a given user (Mallett Figure 7 and column 22, lines 24-65). Mallett and Louis are analogous art because Mallett teaches a process of moving a graphical object across a screen in synch with a users movement of an object across a sensing device and Louis teaches a process of measuring users movements of an object across a device.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of Louis and Mallett before him at the time of the invention was made, to modify the system of Louis to incorporate a menu for setting the degree of reaction of the cursor, in order to obtain a system that is able to allow a user to set the sensitivity to movement and how far the cursor will move with a corresponding movement of the users input on the screen or through the mouse. One would have been motivated to make such a combination because Mallett teaches that user interaction and manipulation of the computer environment is achieved using a variety of types of human-computer interface devices that control the display such as a joystick, mouse etc in which the displacement of the mouse on a workspace directly correlates to the displacement of the cursor *as taught by Mallett.*

With respect to **dependant claims 17 and 18**, as indicated in the above discussion, Louis teaches every element of claim 9.

Louis expressly discloses the ability to adjust the horizontal and vertical size of the selection area using a mouse or direct input on a touch screen (see column 5, lines 1-10 and 19-20).

Louis fails to expressly disclose the preparing a size menu used for setting said at least one of the horizontal size and the vertical size and preparing a **size menu** used for setting the **initial** position.

Mallett expressly teaches the ability to adjust menu settings to control ballistics and speed setting of the cursor on the display as well as the initial cursor position and size of the display screen. The system settings for mouse controls, cursor movement, click speed and other settings that allow for customization of the desktop to a given user (Mallett Figure 7 and column 22, lines 24-65). Mallett and Louis are analogous art because Mallett teaches a process of moving a graphical object across a screen in synch with a users movement of an object across a sensing device and Louis teaches a process of measuring users movements of an object across a device.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of Louis and Mallett before him at the time of the invention was made, to modify the system of Louis to incorporate a menu for setting the degree of reaction of the cursor, in order to obtain a system that is able to allow a user to set the sensitivity to movement and how far the cursor will move with a corresponding movement of the users input on the screen or through the mouse. One would have been motivated to make such a combination because Mallett teaches that user interaction and manipulation of the computer environment is achieved using a variety of types of human-computer interface devices that control the display such as a joystick, mouse etc in which the displacement of the mouse on a workspace directly correlates to the displacement of the cursor as taught by Mallett.

It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re *Heck*, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re *Lemelson*, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).

Response to Arguments

7. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 5,075,673 to Yanker et al., and discloses an adjustable viewport that is pointed at with a cursor that is used to move or point at desired information in the display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven B. Theriault whose telephone number is (571) 272-5867. The examiner can normally be reached on M-F 7:30 - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SBT


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SUPERVISORY PATENT EXAMINER